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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,744	02/15/2008	James Richard John Duke	031617/310635	8258
826	7590	09/02/2010	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			CLERKLEY, DANIELLE A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,744	<b>Applicant(s)</b> DUKE, JAMES RICHARD JOHN
	<b>Examiner</b> DANIELLE CLERKLEY	<b>Art Unit</b> 3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 July 2010.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 26-39, 41-48 and 50-63 is/are pending in the application.
- 4a) Of the above claim(s) 26-38 and 52-63 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 39, 41-43, 45-48, 50 and 51 is/are rejected.
- 7) Claim(s) 44 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 April 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 8/7/2008 & 6/4/2009
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date: \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 45 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 26 of copending Application No. 11/568,171 in view of U.S. Patent No. 5,386,799 to Dietrich. Claim 26 of Application 11/568,171 discloses the claimed limitations of claim 45 of the present invention, but fails to disclose allowing the teat cup to fall in an inverted position. However, Dietrich teaches allowing the teat cup (2) to fall into an inverted position (as shown in Fig. 2), after take-off from the teat, with the head portion of the flexible liner being directed downwardly (Col. 4, lines 51-55), and flushing the interior of the flexible liner with treatment fluid (Col. 2, lines 59 through Col. 3, line 3). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the milking method of Wipperfurth et al. to include inversion of the teat cup as taught by Dietrich for effectively flushing milk and treatment fluid residues from causing chemical or bacterial contamination within the teat cup liner (Dietrich Col. 1, lines 42-60).

3. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claim 39 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 12/066,889 in view of U.S. Patent No. 6,935,270 to Wipperfurth et al. Although the

conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of Application 12/066,889 discloses a teat cup comprising a flexible liner for engaging about a teat of an animal to be milked, said liner having a head portion, at one end, provided with a mouth through which said teat is engagable with the liner, and a milk discharge passageway at the opposite end, nozzle means arranged to discharge fluid into the head portion of the liner, a fluid delivery tube connected to the nozzle means (post-milk flushing means with nozzles of the present invention), characterized in that the fluid delivery tube is connected to the nozzle means via a check valve, which is mounted adjacent the head portion of the liner. Claim 1 of Application 12/066,889 discloses the claimed limitations of claim 39 of the present invention, but fails to disclose a milking cluster, a plurality of short milk tubes, a cluster remover and control means. However, Wipperfurth et al. shows milking equipment comprising: at least one milking cluster (Fig. 1) including a plurality of teat cups (13); a plurality of short milk tubes (14) respectively connecting said discharge passageways of said teat cups to a clawpiece (10) which collects milk discharged from said teat cups for onward delivery; and control means (120, 170) for initiating supply of treatment fluid to said at least one nozzle of each of said teat cups upon take-off so that withdrawal of said teat cups wipes said treatment fluid down said teats (as discussed Col. 8, lines 57-61). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the milking equipment of Application No. 12/066,889 to include the milking cluster and control means of Wipperfurth et al. for the predictable advantage of effectively treating all the teats of the milking animal at once.

5. Wipperfurth et al. fails to specifically show a cluster remover, but discloses it is old and well-known to provide mechanical teat cup removal devices (Col. 1, lines 32-36). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified to include the cluster remover Wipperfurth et al. for the predictable advantage of effecting take-off of the milking cluster from the animal's teats.

6. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Election/Restrictions***

7. Claims 26-27, 29-38 and 52-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant's election with traverse of Group II/Species A, claims 39, 41-48 and 50-51 in the reply filed on 7/30/2010 is acknowledged. The traversal is on the ground(s) that the feature "said at least one nozzle of the/each teat cup is arranged to discharge treatment fluid in a direction towards said discharge passageway of the flexible liner' has been amended in claims 26 and 39, which now share a common technical feature".

8. This is not found persuasive because Group II, independent claim 39, requires a "control means for initiating supply of treatment fluid to said at least one nozzle of each of said teat cups upon take-off so that withdrawal of said teat cups wipes said treatment fluid down said teats", for the advantage of coating the teats of the animal with treatment fluid, which is clearly lacking feature from Group I, claim 26. Further, they are

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distinct inventions because one apparatus, Group I, only requires the treatment fluid to be discharged into the head portion of the flexible liner, while the other apparatus, Group II, requires the treatment fluid to be discharged into the head portion of the flexible liner and onto the teat as the teat cup is being withdrawn. The two inventions do not describe the same essential characteristics, as explained above and in the restriction requirement mailed on 6/3/2010. In conclusion, the requirement is still deemed proper and is therefore made FINAL.

***Claim Objections***

9. Claim 48 is objected to because of the following informalities: Line 2 of the claim, "said flexible line" should be --said flexible liner--. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
11. Claims 45-48 and 50-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
12. Regarding claim 45, the limitation "(f) flushing the interior of said flexible liner with treatment fluid", is confusing since it is unclear whether the same treatment fluid is used to wipe down the teat of the animal *and* flush the interior of the flexible liner.

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13. Further in claim 45, the phrase "and/or" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and/or"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).
14. Claims 46-48 and 50-51 are rejected as being dependent from a rejected base claim.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipperfurth et al. (U.S. Patent No. 6,935,270) in view of Guo (U.S. Patent Application Publication No. 2002/0185071), both as listed on Applicant's Information Disclosure Statement.
17. In re claims 39 and 42, Wipperfurth et al. shows milking equipment comprising: at least one milking cluster (Fig. 1) including a plurality of teat cups (13); each of said teat cups comprising a flexible liner (Fig. 2: 44) for engaging about a teat of an animal to be milked, said liner having a head portion at one end provided with a mouth (56) through which said teat is engageable with said flexible liner, an internal annular cavity (see diagrammed Fig. 2 below) and a milk discharge passageway (at bottom opening 52 of

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the teat cup) at the opposite end thereof; post-milking flushing means (50) for discharging treatment fluid upon termination of a milking stage (Col. 6, lines 27-36); said post-milking flushing means comprising at least one nozzle (60, 62, 64); a plurality of short milk tubes (14) respectively connecting said discharge passageways of said teat cups to a clawpiece (10) which collects milk discharged from said teat cups for onward delivery; and control means (120, 170) for initiating supply of treatment fluid to said at least one nozzle of each of said teat cups upon take-off so that withdrawal of said teat cups wipes said treatment fluid down said teats (as discussed Col. 8, lines 57-61). Wipperfurth et al. fails to specifically show a cluster remover, but discloses it is old and well-known to provide mechanical teat cup removal devices (Col. 1, lines 32-36). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the milking equipment of Wipperfurth et al. to include a cluster remover for the predictable advantage of effecting take-off of the milking cluster from the animal's teats.

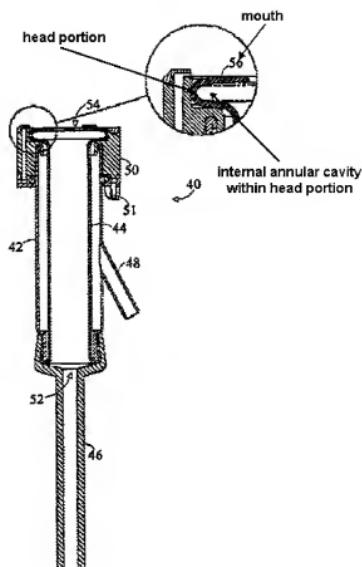


FIG. 2

18. Wipperfurth et al. shows said post-milking flushing means comprising at least one nozzle (60, 62, 64) for discharging treatment fluid, but fails to show the post-milking flushing means is arranged to discharge treatment fluid in a direction towards said discharge passageway of the flexible liner. However, Guo teaches milking equipment (Fig. 6) comprising a teat cup (14) comprising a flushing means (30, 76) having at least one nozzle (26) arranged to discharge treatment fluid in a direction (as discussed in [0025] and indicated by arrows showing treatment fluid flow through means 30 and into

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chamber 38) towards a discharge passageway (42). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the milking equipment of Wipperfurth et al. to include a nozzle to discharge the treatment fluid in the direction of the discharge passageway and internal annular cavity (at lip 76) as taught by Guo for the advantage of treating the flexible liner and cleaning the length of the teat of the animal.

19. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wipperfurth et al. (U.S. Patent No. 6,935,270) in view of Guo (U.S. Patent Application Publication No. 2002/0185071), as applied to claim 39 above, and further in view of Dietrich (U.S. Patent No. 5,386,799).

20. In re claim 41, Wipperfurth et al. as modified by Guo discloses the invention as discussed above, but fails to disclose a non-return valve. However, Dietrich teaches milking equipment (Fig. 3) including a non-return valve (Col. 3, lines 3-5: 10) connected to at least one nozzle (9) and via which treatment fluid is supplied to said at least one nozzle (from line 11). It would have been obvious to one having ordinary skill in the art at the time of the invention to have constructed the milking equipment of Wipperfurth et al. as modified by Guo to include a non-return valve as taught by Dietrich for the advantage of preventing treatment fluid from contaminating harvested milk and the treatment fluid supply.

21. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wipperfurth et al. (U.S. Patent No. 6,935,270) in view of Guo (U.S. Patent Application Publication No. 2002/0185071), as applied to claim 39 above, and further in view of

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Verbrugge (U.S. Patent No. 4,924,809), as listed on Applicant's Information Disclosure Statement.

22. In re claim 43, Wipperfurth et al. as modified by Guo discloses the invention as discussed above, but fails to specifically disclose a shut-off valve connected to the discharge passageway. However, Verbrugge teaches milking equipment including a shut-off valve (Figs. 2-3: 34) connected to a discharge passageway (33) of each teat cup (23) for shutting off treatment fluid flow from said teat cup. It would have been obvious to one having ordinary skill in the art at the time of the invention to have constructed the milking equipment of Wipperfurth et al. as modified by Guo to include a shut-off valve as taught by Verbrugge for the advantage of diverting and preventing treatment fluid from contacting the harvested milk.

23. Claims 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipperfurth et al. (U.S. Patent No. 6,935,270) in view of Dietrich (U.S. Patent No. 5,386,799).

24. In re claims 45 and 48, Wipperfurth et al. shows a milking method comprising the steps of: applying a teat cup (13) to a teat of an animal to be milked (as shown in Fig. 1), said teat cup including a flexible liner (44) engaging about said teat, said flexible liner having a head portion, at one end, provided with a mouth (56) through which the teat is engaged with the liner, and a milk discharge passageway (at bottom opening 52 of the teat cup) at the opposite end thereof, activating said teat cup to perform a milking operation (abstract); when the milking operation is terminated, discharging treatment fluid into said head portion of said flexible liner and withdrawing said teat cup from said

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teat (Col. 3, lines 37-41), said treatment fluid being discharged into said head portion of the teat cup (Col. 6, lines 27-30: delivery of fluid to teat within orifice 54, thus fluid will be discharged into the head portion of the flexible liner) and onto said teat as said teat cup is withdrawn (as discussed Col. 8, lines 57-61), utilizing withdrawal of said teat cup to wipe the treatment fluid down the teat (Col. 8 line 65 through Col. 9 line 3), and flushing the interior of said flexible liner with treatment fluid, washing and/or drying fluid being discharged into said flexible liner from said head portion (as discussed in Col. 8, lines 39-43).

25. Wipperfurth et al. discloses the teat cups are retracted to a storage position (Col. 8, lines 42-43), but fails to show the teat cups fall into an inverted position after take-off from the teats. However, Dietrich teaches a milking method, comprising the steps of: allowing the teat cup (2) to fall into an inverted position (as shown in Fig. 2), after take-off from the teat, with said head portion of said flexible liner being directed downwardly (Col. 4, lines 51-55), and flushing the interior of said flexible liner with treatment fluid (Col. 2, lines 59 through Col. 3, line 3); wherein the discharge of treatment fluid into said head portion of said flexible liner is controlled by a non-return valve (Col. 3, lines 3-5). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the milking method of Wipperfurth et al. to include inversion of the teat cup as taught by Dietrich for effectively flushing milk and treatment fluid residues from causing chemical or bacterial contamination within the teat cup liner (Dietrich Col. 1, lines 42-60).

26. In re claims 46, Wipperfurth et al. as modified by Dietrich further discloses the step of detecting when milking is to be terminated (Wipperfurth et al. Col. 8, lines 11-14) and, in response to said detecting step, initiating take-off of said teat cup from the teat and discharging treatment fluid into said head portion of said flexible liner and onto said teat, such that withdrawal of said teat cup from the teat upon take-off substantially coats the teat with the treatment fluid (Wipperfurth et al. Col. 8, lines 57-61 and Col. 8 line 65 through Col. 9 line 3).

27. In re claim 47, Wipperfurth et al. as modified by Dietrich further discloses the step wherein said treatment fluid is discharged into a void formed between said teat and said head portion of said flexible liner (Wipperfurth et al. Col. 6, lines 27-30: delivery of fluid to teat within orifice 54, thus fluid will flow down the teat into an interior space within head portion between the teat and the flexible liner).

28. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wipperfurth et al. (U.S. Patent No. 6,935,270) in view of Dietrich (U.S. Patent No. 5,386,799), as applied to claims 45-48 above, and further in view of Verbrugge (U.S. Patent No. 4,924,809).

29. In re claim 50, Wipperfurth et al. as modified by Dietrich discloses the invention as discussed above, but fails to specifically disclose the step of shutting off the discharge passageway upon take-off of said teat cup. However, Verbrugge teaches a milking method comprising the step of shutting off (Figs. 2-3: valve 34) a discharge passageway (33) of a flexible liner (25) upon take-off of a teat cup (Col. 2, lines 20-28). It would have been obvious to one having ordinary skill in the art at the time of the

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invention to have modified the milking method of Wipperfurth et al. and Dietrich to include shutting off the discharge passageway as taught by Verbrugge for the advantage of diverting and preventing treatment fluid from contacting the harvested milk.

30. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wipperfurth et al. (U.S. Patent No. 6,935,270) in view of Dietrich (U.S. Patent No. 5,386,799), as applied to claims 45-48 above, and further in view of Happel et al. (U.S. Patent No. 4,395,971).

31. In re claim 51, Wipperfurth et al. as modified by Dietrich discloses the invention as discussed above, but fails to specifically disclose applying a pulse of compressed air to the interior of said head portion of said flexible liner, subsequently to the discharge of treatment fluid thereinto, so as to facilitate removal of said teat cup from the teat. However, Happel et al. teaches a known milking method comprising applying a pulse of compressed air for release of the teat from the milking equipment (Col. 2, lines 9-17). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the method of Wipperfurth et al. as modified by Dietrich and applied a pulse of compressed air for release of the teat as taught by Happel et al. so as to easily loosen the teat cups from around the teats and effectively discharge the treatment fluid down the teat.

***Allowable Subject Matter***

32. Claim 44 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Forsen et al (U.S. Patent No. 6,561,126) and Reisgies et al. (U.S. Patent No. 4,516,530).

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIELLE CLERKLEY whose telephone number is (571) 270-7611. The examiner can normally be reached on M-TH 8:00 AM - 5:00 PM EST, F 8:00 AM - 4:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIELLE CLERKLEY/  
Examiner, Art Unit 3643

/Kimberly S Smith/  
Primary Examiner, Art Unit 3644